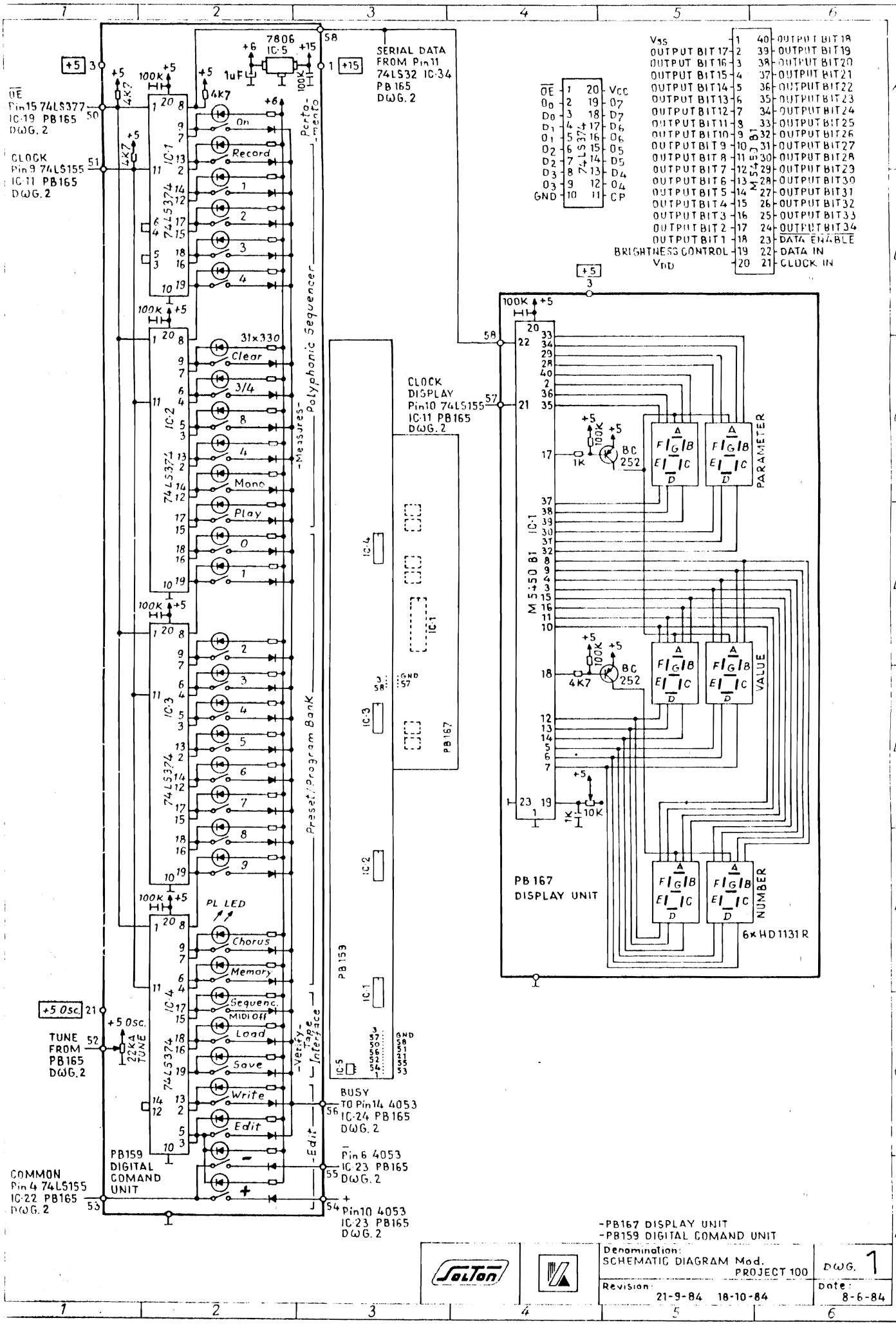
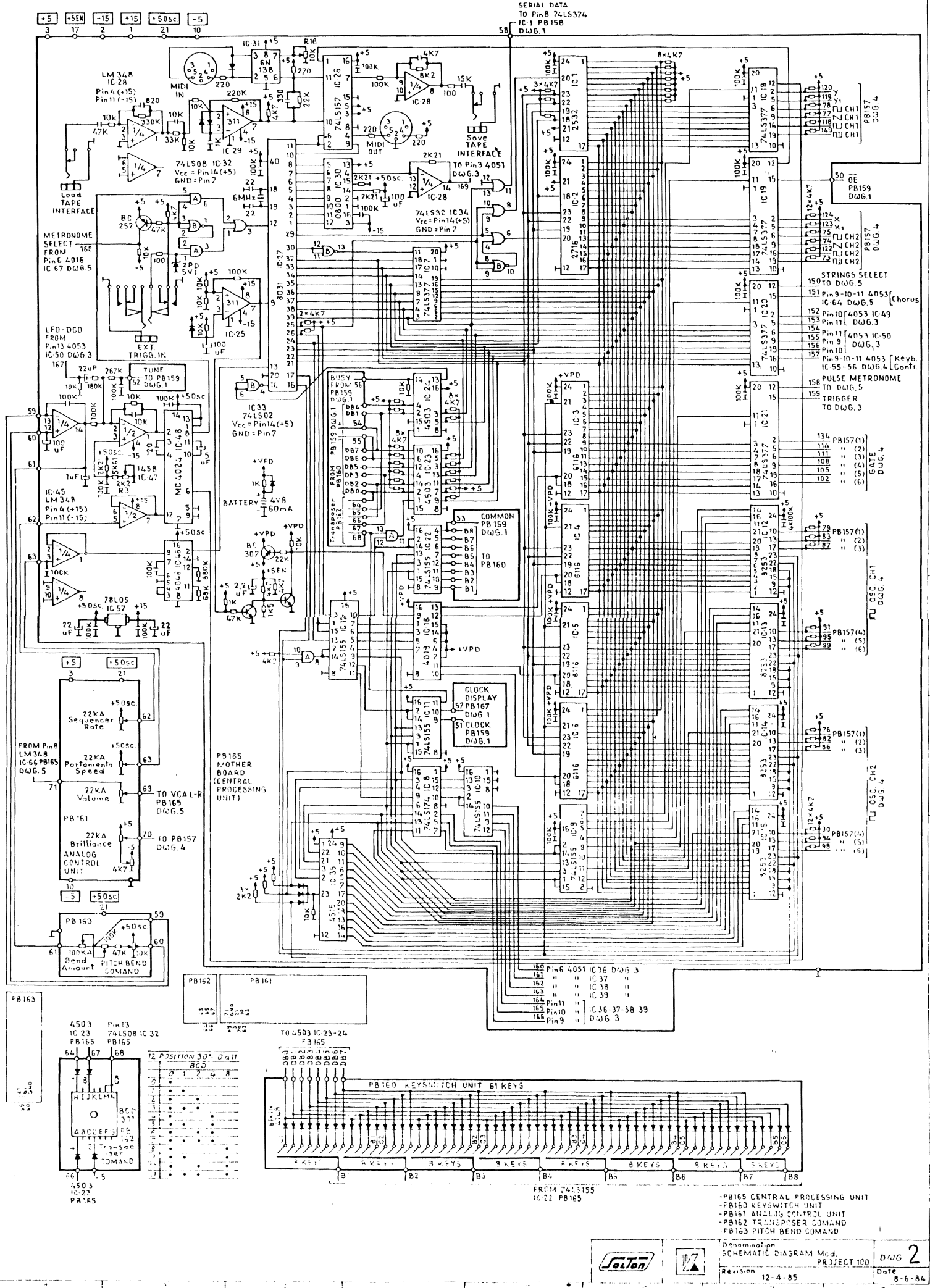
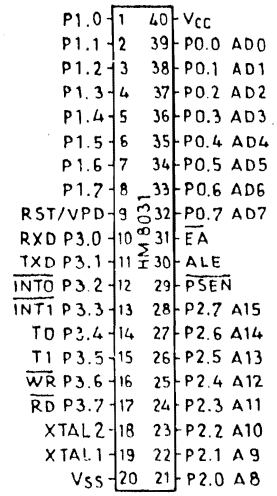
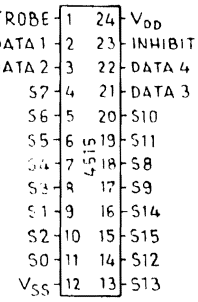
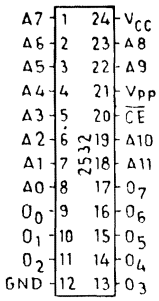
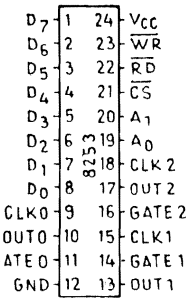

7806 IC-5
SERIAL DATA FROM Pin11 74LS32 IC-34 PB165 DWG. 2
OE Pin15 74LS377 IC-19 PB165 DWG. 2
CLOCK Pin9 74LS155 IC-11 PB165 DWG. 2
On
Record
1
2
3
4
31x330
Clear
3/4
8
4
Mono
Play
0
1
2
3
4
5
6
7
8
9
PL LED
Chorus
Memory
Sequenc.
MIDI Off
Load
Save
Write
Edit
-
+
Portamento
-Measures- Polyphonic Sequencer
-Preset/Program Bank
-Verify- Tape Interface
-Edit-
PB159 DIGITAL COMAND UNIT
TUNE FROM PB165 DWG.2
22K4 TUNE
COMMON Pin4 74LS155 IC-22 PB165 DWG. 2
BUSY TO Pin14 4053 IC-24 PB165 DWG. 2
Pin6 4053 IC-23 PB165 DWG. 2
Pin10 4053 IC-23 PB165 DWG. 2
CLOCK DISPLAY Pin10 74LS155 IC-11 PB165 DWG. 2
PB153
PB167
M5450 B1
PARAMETER
VALUE
NUMBER
BC 252
PB 167 DISPLAY UNIT
6x HD1131R
OUTPUT BIT 18
OUTPUT BIT 19
OUTPUT BIT 20
OUTPUT BIT 21
OUTPUT BIT 22
OUTPUT BIT 23
OUTPUT BIT 24
OUTPUT BIT 25
OUTPUT BIT 26
OUTPUT BIT 27
OUTPUT BIT 28
OUTPUT BIT 29
OUTPUT BIT 30
OUTPUT BIT 31
OUTPUT BIT 32
OUTPUT BIT 33
OUTPUT BIT 34
DATA ENABLE
DATA IN
CLOCK IN
BRIGHTNESS CONTROL
-PB167 DISPLAY UNIT
-PB159 DIGITAL COMAND UNIT
Denomination: SCHEMATIC DIAGRAM Mod. PROJECT 100
DWG. 1
Revision: 21-9-84 18-10-84
Date: 8-6-84

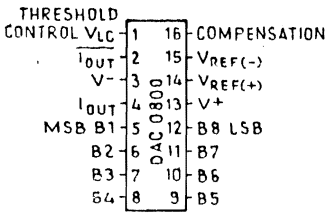

SERIAL DATA
TO Pin8 74LS374
IC-1 PB158
DWG.1
+5
+5EN
-15
+15
+50sc
-5
MIDI IN
MIDI OUT
LM 348
IC 28
74LS08 IC 32
Vcc = Pin14(+5)
GND = Pin7
74LS32 IC 34
Vcc = Pin14(+5)
GND = Pin7
Load TAPE INTERFACE
Save TAPE INTERFACE
METRONOME SELECT FROM Pin6 4016 IC 67 DWG.5
LFO-DCO FROM Pin13 4053 IC 50 DWG.3
EXT. TRIGG. IN
TUNE TO PB159 DWG.1
IC33 74LS02
Vcc = Pin14(+5)
GND = Pin7
BATTERY 4V8 60mA
78L05 IC 57
IC:45 LM348
Pin4 (+15)
Pin11 (-15)
MC 4024
IC 48
IC 47
R3
IC 31
IC 26
74LS157
IC 30
0800
IC 27
8031
IC 29
IC 25
IC 28
IC 24
IC 23
IC 22
IC 12
IC 11
IC 10
IC 35
IC 46
4046
IC 67
4016
IC 66
4019
74LS155
74LS174
4515
IC 1
IC 2
IC 3
IC 4
IC 5
IC 6
IC 7
IC 8
IC 9
2532
2716
6116
8253
74LS377
IC 18
IC 19
IC 20
IC 21
8x4K7
3x4K7
2x4K7
12x4K7
STRINGS SELECT
TO DWG.5
Pin 9-10-11 4053 IC 64 DWG.5 [Chorus
Pin10 [4053 IC-49 DWG.3
Pin11 [4053 IC-50 DWG.3
Pin 9
Pin10
Pin 9-10-11 4053 IC 55-56 DWG.4 [Keyb. Contr.
PULSE METRONOME
TO DWG.5
TRIGGER
TO DWG.3
COMMON PB159 DWG.1 TO PB160
CLOCK DISPLAY 57 PB167 DWG.1
CLOCK PB159 DWG.1
PB165 MOTHER BOARD (CENTRAL PROCESSING UNIT)
FROM Pin8 LM348 IC 66 PB165 DWG.5
22KA Sequencer Rate
22KA Portamento Speed
22KA Volume
22KA Brilliance
ANALOG CONTROL UNIT
PB161
TO VCA L-R PB165 DWG.5
TO PB157 DWG.4
PB163
100KA Bend Amount
PITCH BEND COMAND
PB162
TRANSPOSER COMAND
TO 4503 IC 23-24 PB165
4503 IC 23 PB165
74LS08 IC 32 PB165
12 POSITION 30°- Q all
BCD
0 1 2 4 8
PB160 KEYSWITCH UNIT 61 KEYS
9 KEYS
8 KEYS
FROM 74LS155 IC 22 PB165
Pin6 4051 IC 36 DWG.3
IC 37
IC 38
IC 39
Pin11
Pin10
Pin9
IC 36-37-38-39 DWG.3
PB157 DWG.4
CH1
CH2
OSC CH1
OSC CH2
GATE
OE PB159 DWG.1
-PB165 CENTRAL PROCESSING UNIT
-PB160 KEYSWITCH UNIT
-PB161 ANALOG CONTROL UNIT
-PB162 TRANSPOSER COMAND
PB163 PITCH BEND COMAND
Denomination
SCHEMATIC DIAGRAM Mod.
PROJECT 100
DWG. 2
Revision
12-4-85
Date
8-6-84

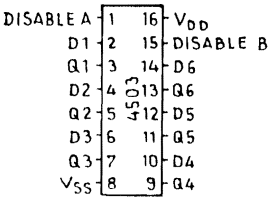


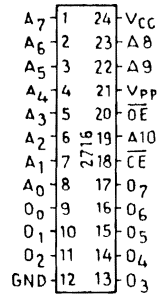


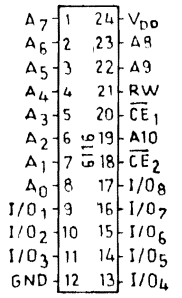


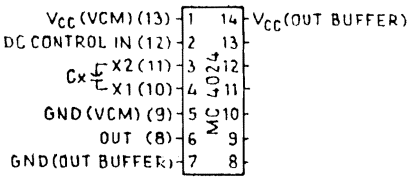


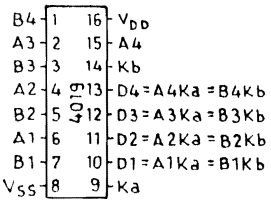

THRESHOLD CONTROL VLC 1 16 COMPENSATION
IOUT 2 15 VREF(-)
V- 3 14 VREF(+)
IOUT 4 13 V+
MSB B1 5 12 B8 LSB
B2 6 11 B7
B3 7 10 B6
B4 8 9 B5
DAC 0800

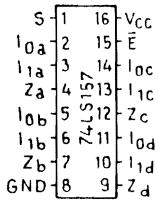


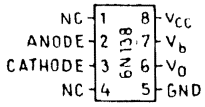


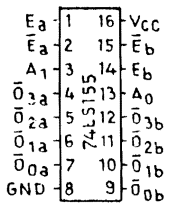


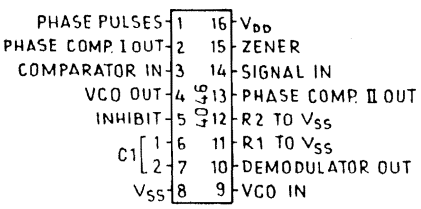


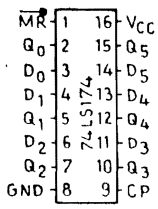


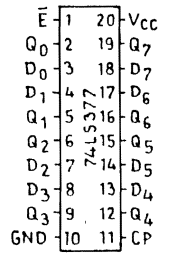




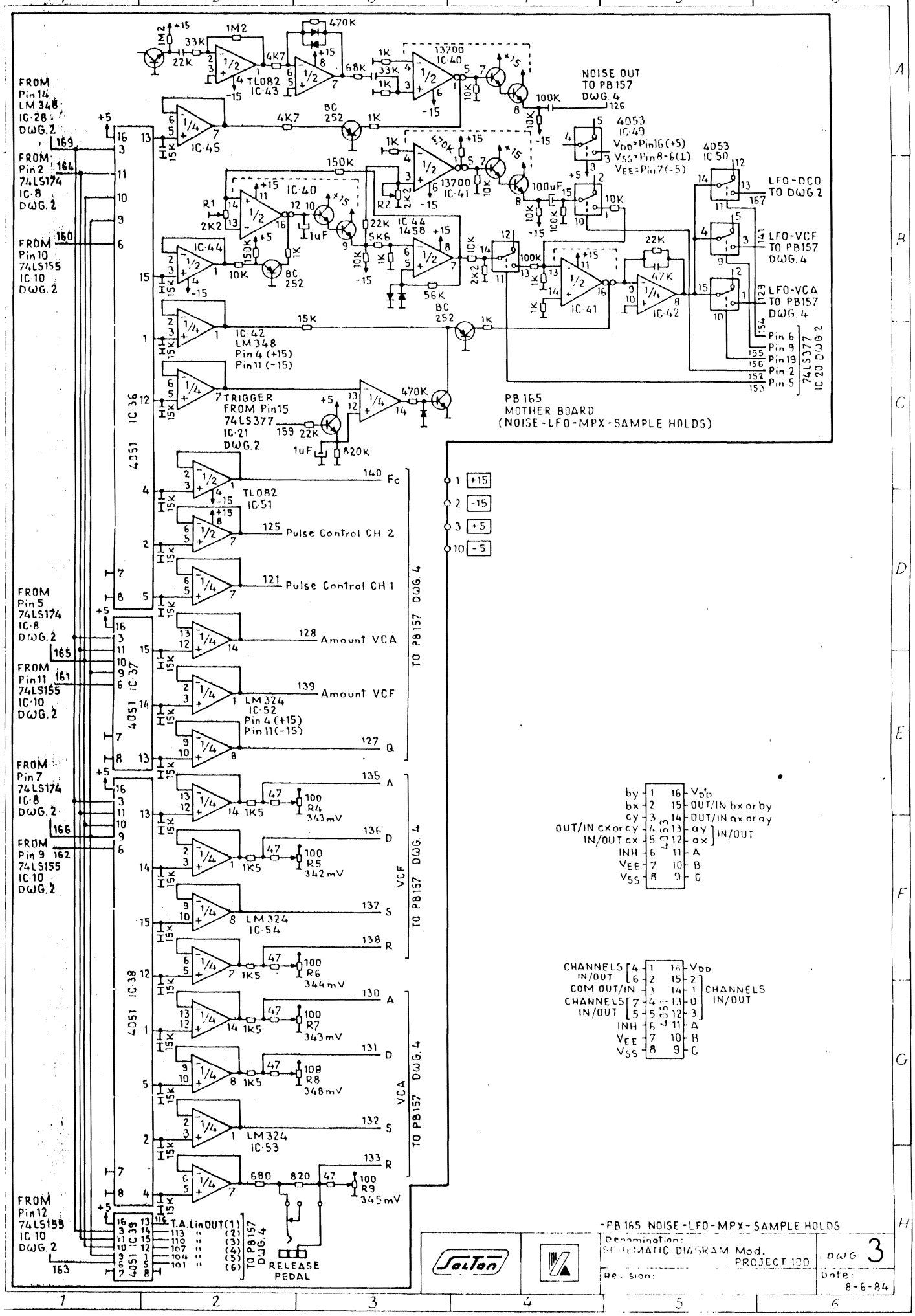



PHASE PULSES 1 16 VDD
PHASE COMP. I OUT 2 15 ZENER
COMPARATOR IN 3 14 SIGNAL IN
VCO OUT 4 13 PHASE COMP. II OUT
INHIBIT 5 12 R2 TO VSS
C1 1 6 11 R1 TO VSS
2 7 10 DEMODULATOR OUT
VSS 8 9 VCO IN
4046





Saitan		Denomination: SCHEMATIC DIAGRAM Mod. PROJECT 100
		Revision:
DWG. 2 BIS		Date: 8-6-84



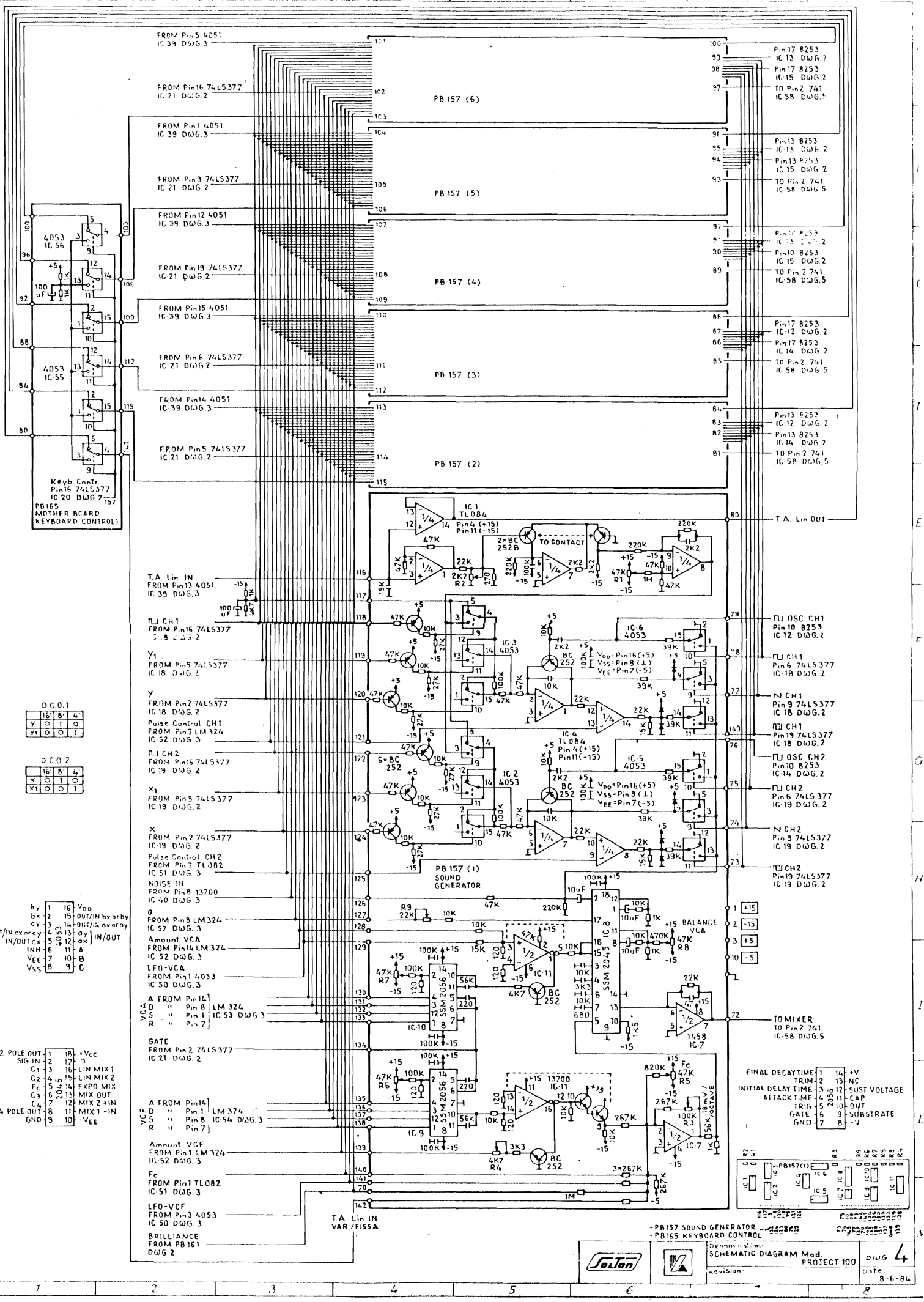
-PB 165 NOISE-LFO-MPX-SAMPLE HOLDS

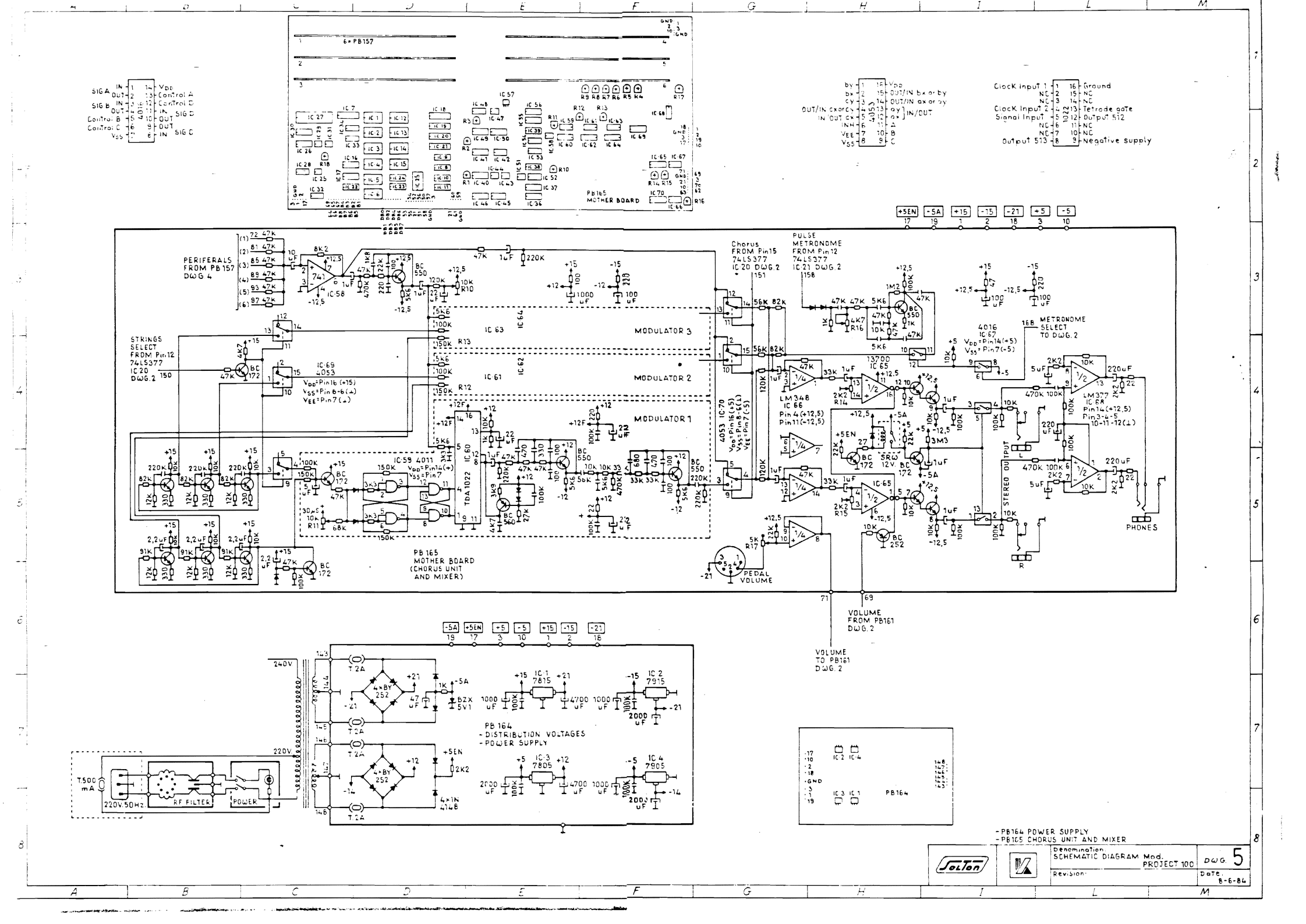
Denomination: SCHEMATIC DIAGRAM Mod. PROJECT 100

DWG 3

Revision:

Date: 8-6-84


PB 157 (6)
PB 157 (5)
PB 157 (4)
PB 157 (3)
PB 157 (2)
PB 157 (1)
SOUND GENERATOR
PB165
MOTHER BOARD
KEYBOARD CONTROL
Keyb Contr.
Pin16 74LS377
IC 20 DWG.2
IC 1
TL 084
IC 2
4053
IC 3
4053
IC 4
TL 084
IC 5
4053
IC 6
4053
IC 7
1458
IC 8
SSM 2045
IC 9
SSM 2056
IC 10
SSM 2056
IC 11
13700
IC 12
DWG.2
IC 13
DWG.2
IC 14
DWG.2
IC 15
DWG.2
IC 16
DWG.2
IC 17
DWG.2
IC 18
DWG.2
IC 19
DWG.2
IC 20
DWG.2
IC 21
DWG.2
IC 39
DWG.3
IC 40
DWG.3
IC 50
DWG.3
IC 51
DWG.3
IC 52
DWG.3
IC 53
DWG.3
IC 54
DWG.3
IC 58
DWG.5
T.A. Lin OUT
T.A. Lin IN
FROM Pin13 4051
IC 39 DWG.3
T.A. Lin IN
VAR./FISSA
BRILLIANCE
FROM PB161
DWG.2
OSC. CH1
Pin 10 8253
IC 12 DWG.2
CH1
Pin 6 74LS377
IC 18 DWG.2
N CH1
Pin 9 74LS377
IC 18 DWG.2
CH1
Pin 19 74LS377
IC 18 DWG.2
OSC. CH2
Pin 10 8253
IC 14 DWG.2
CH2
Pin 6 74LS377
IC 19 DWG.2
N CH2
Pin 9 74LS377
IC 19 DWG.2
CH2
Pin 19 74LS377
IC 19 DWG.2
TO MIXER
TO Pin 2 741
IC 58 DWG.5
BALANCE VCA
+15
-15
+5
-5
D.C.O.1
D.C.O.2
LFO-VCA
FROM Pin1 4053
IC 50 DWG.3
Amount VCA
FROM Pin14 LM 324
IC 52 DWG.3
Amount VCF
FROM Pin1 LM 324
IC-52 DWG.3
LFO-VCF
FROM Pin3 4053
IC 50 DWG.3
Fc
FROM Pin1 TL082
IC-51 DWG.3
GATE
FROM Pin2 74LS377
IC 21 DWG.2
NOISE IN
FROM Pin8 13700
IC 40 DWG.3
Pulse Control CH1
FROM Pin7 LM 324
IC-52 DWG.3
Pulse Control CH2
FROM Pin7 TL082
IC 51 DWG.3
FINAL DECAY TIME
TRIM
INITIAL DELAY TIME
ATTACK TIME
TRIG
GATE
GND
+V
NC
SUST. VOLTAGE
CAP
OUT
SUBSTRATE
-V
- PB157 SOUND GENERATOR
- PB165 KEYBOARD CONTROL
SCHEMATIC DIAGRAM Mod. PROJECT 100
DWG 4
Revision
Date 8-6-84


PERIFERALS FROM PB 157 DWG 4
STRINGS SELECT FROM Pin12 74LS377 IC 20 DWG.2 150
MODULATOR 3
MODULATOR 2
MODULATOR 1
IC 63
IC 64
IC 61
IC 62
IC 60
TDA 1022
IC 58
IC 59 4011
IC 69 4053
Vdd=Pin16 (+15)
Vss=Pin 8-6 (-5)
VEE=Pin7 (-5)
PB 165 MOTHER BOARD (CHORUS UNIT AND MIXER)
Chorus FROM Pin15 74LS377 IC 20 DWG.2 151
PULSE METRONOME FROM Pin12 74LS377 IC 21 DWG.2 158
IC 70 4053
IC 65 13700
LM348 IC 66
Pin 4 (+12,5) Pin11 (-12,5)
4016 IC 67
METRONOME SELECT TO DWG.2
LM377 IC 68
Pin14 (+12,5) Pin3-4-5 10-11-12 (⊥)
STEREO OUTPUT
PHONES
PEDAL VOLUME
VOLUME FROM PB161 DWG.2
VOLUME TO PB161 DWG.2
+5EN -5A +15 -15 -21 +5 -5
17 19 1 2 18 3 10
240V
220V
T500 mA
220V 50Hz
RF FILTER
POWER
4xBY 252
BZX 5V1
IC 1 7815
IC 2 7915
IC 3 7805
IC 4 7905
PB 164
- DISTRIBUTION VOLTAGES
- POWER SUPPLY
PB 164 POWER SUPPLY
PB 165 CHORUS UNIT AND MIXER
Denomination: SCHEMATIC DIAGRAM Mod. PROJECT 100
DWG. 5
Revision:
Date: 8-6-84